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ARTS AND ACTIVITIES

THE TEACHER'S ARTS AND CRAFTS GUIDE.

Vol. 47, No. 2

MARCH, 1960

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■ When the usual spring games, tricks and fads appear this year, a new problem may be faced by classroom teachers: "glue sniffing". When pupils rush to buy airplane cement at the local hobby shops, trouble for schools may be ahead. Teen-agers in Wichita Falls, Texas, learned that by inhaling the sticky stuff's fumes they could get "high"—a feeling of drunkenness. Some 4000 youngsters are suspected of taking up the fad. The glue is cheap and the method for sniffing is simple and fast. A lungful of fumes can leave a person intoxicated for from 30 minutes up to several hours.

The practice seems comic—but is deadly serious. Repeated use of the fumes can permanently damage the brain, kidneys and liver—and even kill.

■ Another source of quick, cheap intoxication has been stamped out by the U.S. Food and Drug Administration. Ten years ago, manufacturers of nasal inhalers found a suitable substitute and stopped using a chemical called amphetamine, a dope-like drug that could be easily extracted and used by thrill-seekers. When a new manufacturer recently began using amphetamine all over again, an outbreak of crime in Kansas City, Missouri, was traced to juvenile gangs who had been extracting the drug from the new inhalers and injecting it into their arms. The FDA cracked down, and the sale of amphetamine or anything containing it without prescriptions is now forbidden.

■ The U.S. Labor Department's Division of Manpower and Employment paints a grim picture of what is happening to students who try to find a place in the current labor market without a high school diploma. Things aren't too rosy on the labor side of the fence, either, reports **Dr. Seymour L. Wolfbein**, division chief.

"Dropouts are robbing the nation of essential highly trained blue collar workers," says Wolfbein. "Skilled labor . . . increasingly complex as it is . . . is more and more requiring minimum levels of educational attainment." For example, the Department of Labor currently lists 60 skills that are in short supply and each requires at least a high school education.

Investigating drop-outs, the Labor Department surveyed some 22,000 "school-leavers". These included about 12,000 who graduated from high school but didn't go further, and 10,000 who dropped out of school before graduation. Some of the facts the study revealed:

Unemployment at the time of the interview for the dropouts ran as high as nine times that of graduates in one of the seven geographical areas included in the survey. Only in one area was the ratio less than two to one.

As to earning power, only four percent of the male graduates were making less than \$40, but 16 percent of the drop-outs were at the lowest end of the wage scale.

ALEX L. PICKENS

Associate Professor of Art Education
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The girls didn't fare any better although earnings were lower. Three and one half times as many girl drop-outs as girl graduates were making less than \$30 per week. For girls especially, a high school diploma meant the difference between getting a white-collar clerical job and joining the unskilled labor force. A startling 64 percent of the graduates got clerical work, compared with 15 percent for the girl drop-outs. The difference was not so marked for boys. About 37 percent of the boy drop-outs went into unskilled jobs in comparison with 28 percent of the graduates.

Dissatisfaction with school was the single most important reason given by the drop-outs; 38 percent of the boys and 31 percent of the girls said that was why they quit. When asked how school could have been more helpful to them, a third of the boys and about half of the girls who replied put more vocational guidance at the top of the list. Also frequently mentioned were "a better curriculum" and "better teachers".

How can we keep teen-agers in school? The Labor Department agrees with **Dr. James Conant** in this instance. Both come up with the same recommendation: start guidance and counseling in the elementary grades. Dr. Wolfbein states: "Many students leave school well before they get their hands on occupational literature, or before the guidance and counseling process begins to function in their behalf." Only about two out of every five drop-outs interviewed had had any vocational guidance of any kind.

Detroit, Michigan, has a special "Job Upgrading" program for drop-outs. The program has two aims: to convince the bright or teachable student to return to school, or if that fails, to train him for a job if he is determined to stay out of school.

■ Dartmouth College asked last year's freshmen just how well they thought their high schools prepared them for college.

Results were surprising. Contrary to expectations, 32 percent of the 500 students who replied said they were best prepared in math and science. But 56 percent said high school reading assignments were weak or meaningless. Of those students from public schools (about 72 percent of the freshmen group) 68 percent indicated that they wished reading assignments had been more demanding.

When asked what subjects they were least prepared for, students gave English the biggest percentage of votes.

A majority of students were not satisfied with the foreign language studies offered in their schools.

Dartmouth's department of admissions made the survey to get facts to pass on to high school guidance departments and administrators concerned with curriculum planning.

■ One of the clearest statements of youth needs as objectives of schools appears in *Planning for American Youth*, published by the National Association of Secondary School Principals. In it are listed ten imperative needs of youth of secondary school age:

(1) All youth need to develop saleable skills and those understandings and attitudes that make the worker an intelligent and productive participant in economic life. To this end, most youth need supervised work experience as well as education in the skills and knowledge of their occupations.

(2) All youth need to develop and maintain good health, physical fitness, and mental health.

(3) All youth need to understand the rights and duties of the citizen of a democratic society, and to be diligent and competent in the performance of their obligations as members of the community and citizens of the state and nation, and to have an understanding of the nations and peoples of the world.

(4) All youth need to understand the significance of the family for the individual and society and the conditions conducive to successful family life.

(5) All youth need to know how to purchase and use goods and services intelligently, understanding both the value received by the consumer and the economic consequences of their acts.

(6) All youth need to understand the methods of science, the influence of science on human life, and the main scientific facts concerning the nature of the world and of man.

(7) All youth need opportunities to develop their capacities to appreciate beauty in literature, art, music and nature.

(8) All youth need to be able to use their leisure time well and budget it wisely, balancing activities that yield satisfactions to the individual with those that are socially useful.

(9) All youth need to develop respect for other persons, to grow in their insight into ethical values and principles, to be able to work cooperatively with others, and to grow in the moral and spiritual values of life.

(10) All youth have the obligation to maintain respect for rational thought and to exercise the discipline necessary for clarity of expression and understanding. ■

SHOP TALK

For the 11th year, AMACO will hold summer workshops in ceramics and metal enameling in June, July and August. Teachers can earn both undergraduate and graduate credit in these workshops that are operated jointly by American Art Clay Company and the John Herron Art School of Indianapolis.

The curriculum is designed to aid the teacher in introducing pottery, sculpture and metal enameling at any age level, and the creative approach is stressed. Although the workshops are largely dependent on participation, lectures, demonstrations and films supplement the program. For more information, write No. 154 on your Inquiry Card.

Films demonstrating ceramic art are extremely valuable to art and classroom teachers. A series produced by Indiana University's Audio-Visual Center consists of six 16 mm sound and color films, each running 10 minutes. These cover simple slab methods, throwing a pot on the wheel, simple molds, decoration, glaze application and stacking and firing in a small kiln. They present clay craftsmanship in a simple direct manner and the films are being used successfully with high school and college arts and crafts classes, recreation and camp groups, hospital therapy activities and adult hobby groups. For more information on the Craftsmanship in Clay film series, write No. 155 on your Inquiry Card.

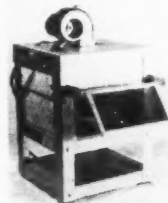


The year 1960 brings to the American Crayon Company their 125th anniversary as a manufacturer of quality colors and writing materials for school and commercial uses. Frank G. Atkinson, president of the Joseph Dixon Crucible Company, and L. P. Spore, president of the American Crayon Division, shake hands as they prepare to cut the birthday cake.

Dozens of everyday classroom, library, workshop and laboratory tasks are eased with a new plastic substance that combines the functions of thumbtacks, staples, pins, cement and sticky tape in one easy-to-use material. DELKOTE Solid Tak, it's called, and it sticks indefinitely to any clean, dry surface, yet it can be removed in seconds and reused as often as desired. It leaves no gummy residue to clean off. The material holds equally well on paper, masonry, plaster, painted surfaces, woodwork, metal, ceramics and glass but it doesn't stick to fingers. It isn't affected by water or extremes in temperature and thus can be used indoors or out in any kind of weather.

One of its more obvious uses is for posting papers, photos, signs, maps and the like on walls or windows. Because it holds surprisingly heavy objects (up to a pound or so) on vertical surfaces, librarians and science teachers find it handy for mounting displays. Art students use it to hold still life subjects in exact position, keep paints from spilling, quickly adhere canvas and paper to frames or mounts, and to display finished work on walls. For more information and prices, write No. 158 on your Inquiry Card.

A kiln that uses infra-red heat has introduced a new concept in metal enameling. No pre-heating period is necessary and because infra-red heats on contact, the interior of the kiln doesn't have to be a glowing red. It requires only three to five minutes to bring a cold kiln up to operating temperature—1450 to 1650 degrees. The infra-red kiln has eliminated the usual heavy insulated door and in its place is a cobalt blue fire-glass viewer that allows constant inspection to determine when the proper fusing of enamel has taken place.



The kiln is adaptable for china painting, jewelry work, glass enameling, aluminum enameling and bisquing of ceramic ware. For more information write No. 159 on your Inquiry Card.

A number of excellent handbooks on all phases of ceramics are available to teachers, some free and some at a nominal cost. For example "Underglaze Decoration" contains basic information on this important phase and is illustrated with original designs by Marc Bellaire. The same publisher puts out a copper enameling handbook that contains 200 photographs and covers the basic fundamentals of enameling in general as well as specific how-to-do-it activities. In addition to its value as a working handbook, it contains a detailed index that makes it a valuable reference source. For more information, write No. 160 on your Inquiry Card. ■



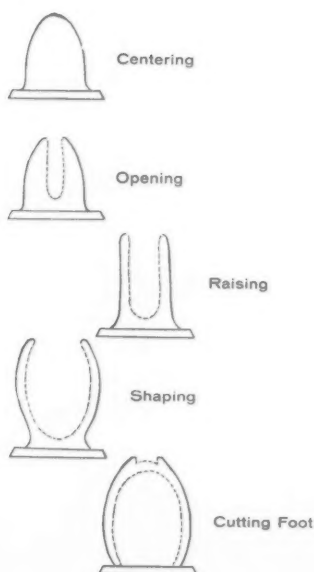
Ready for first stage of throwing pot, right arm is rigidly braced, palm on clay. Left hand exerts slight downward pressure to prevent ball from sliding sideways while right hand persuades ball to well-balanced shape. Clay and hands need frequent sponging so that clay does not drag or pull.



The Big-Wheel Potter

By **IRVING BERG**

Head, Department of Fine Arts
Central High School
Detroit, Michigan



Primitive man—who lived almost as part of the earth itself—soon discovered that he could shape and fire the clay under his feet to make pots. The handiwork of these early potters has provided modern historians and archaeologists with enlightening clues to the lives and habits of past civilizations. The Dead Sea Scrolls recently discovered in the Middle East had been sealed in clay vessels which remained intact for over 2000 years. Most of the ancient vessels were made by hand. The first recorded use of the potter's wheel was in Egypt over 3000 years ago. In our own country the richly decorated Indian pots were made by hand until the potter's wheel was first introduced by European artisans.

Pottery is still made in some parts of the world on wheels similar to the ones used by the early Egyptians. In these primitive villages the apprentice potter begins at an early age, and his training is slow and thorough. Starting with the actual digging and preparing of the clay he slowly advances to wedging and other indispensable chores. By the time he graduates to the potter's wheel he has deep feeling for and understanding of the material.

The need for pottery may no longer be urgent but the fascination of the potter's wheel has continued unabated over the centuries. This is no neglected craft or



With hands firmly supporting each other, potter embarks on second step: opening ball. One thumb (or both as at right, or middle finger—even whole hand) probes top surface for center of ball. When thumb no longer rides around, it is at center and potter slowly allows it to penetrate into body of clay. Depth of opening depends partly on pot's final shape.



At summit of clay's fascination stands the exacting, uncompromising potter's wheel, demanding skill that is hard to teach and harder to learn—a skill of heart and hand.



Hand on inside of clay ball exerts steady outward and upward pressure, always working up from bottom center of pot, magically forcing it to rise. This stage needs extreme caution for it is point of no return in creation of pot. Mistakes become increasingly difficult to correct.





dying skill to be revived, but a challenging art whose elusive skill is sought after in every segment of society. The very discipline of the potter's wheel—demanding, exacting, uncompromising—is to some artists an irresistible attraction. The serious technical demands of this craft quickly eliminate merely curious students who may be enchanted by the beauty of the pot being raised on the wheel but who haven't the persistence or stamina necessary to learn the skill. However, in each group a certain number of determined students will have an overpowering urge to test themselves on the wheel and to learn to shape the wet plastic clay between their hands as it turns. History proves that pottery is no frill in the lives of men, and a brief experience in front of the wheel would silence the harshest "snap course" critic.

Instead of digging their own clay the students in our public schools today usually find a neat plastic bag inside the sack of prepared clay including a complete set of directions on how to mix it. If the modern plastic bag method doesn't seem appropriate to this ancient material, the clay may be sifted into a pail or crock of water and allowed to mature slowly until it is thick enough to be handled and wedged. Pouring the semi-liquid onto clean plaster battes will hasten the drying time.

The consistency of the clay must be carefully controlled during the wedging process. Clay of satisfactory consistency to be used on the wheel can be easily rolled into a coil and bent without cracking. If the clay is too hard it will resist centering and if too soft will collapse when raised. Water sprinkled on the plaster wedging batte will soften stiff clay while further wedging will stiffen soft clay.



Wheel kicked down to slow steady pace, shaping begins. Fingers of both hands oppose each other but pressure is not always equal. If pot is to belly out, inside fingers increase pressure and tend to move slightly above outside fingers which may relax a little but continue to control.

While wedging is important for all types of clay work, beginner's luck or a very slowly fired kiln may permit a ceramic sculpture or a handmade bowl to survive the rigors of the kiln even if it has a few trapped air pockets. But a potter would be foolhardy to tempt fate in so reckless a manner. If there are air pockets in clay on the wheel, the pot very likely is doomed before it even reaches the kiln. The air pocket may travel in the clay and may change shape but it will remain as a foreign agent, frustrating the potter's control. It can only be removed by first discovering it and pricking the bulge with a needle or nail and carefully pressing all the air out of it. Even then a pitted area will remain.

There are two common methods for wedging clay. The one most prevalent in this country is the popular "slam bang"

method. The ball of clay is cut in half on a taut wire usually suspended from the wedging table to the closest wall or to a vertical brace. The first half is slammed down on the wedging surface with the cut edge facing the potter. The second half is banged down on top of it with the cut edge in approximately the same position. The air bubbles are caught coming and going and are forced out through the exposed cut edges. This process is repeated until the clay is of even consistency and no air bubbles are visible on the cut surface of the clay.

The second method is the Far Eastern method popularized by Bernard Leach, the English potter, after he returned from 10 years of studying pottery in Japan. This method is not so dramatic or noisy and quite a bit more difficult to describe. I recommend that anyone interested refer to

Student potter pauses, shows satisfaction with her work so far. In each group of students, some will possess overpowering urge to test themselves on wheel.



A Potter's Book by Bernard Leach for detailed directions. The thoroughly wedged clay may be wrapped in plastic until ready for use. It is not unusual to wedge three or four balls of clay at one session, wrap them carefully, and start fresh at the next session with the potter's wheel.

It must have been reassuring for the ancient potter to slide down in the hole in his hut where his wheel was firmly planted, to place his bare feet on the cool flat kick wheel and his hands on the smooth floor-level throwing head, with all his tools and clay neatly spread around him on the floor of his hut. The student potter today faces a formidable electric wheel with complex variable-speed paraphernalia or must stand up to a kick wheel of intricate design, but even so the modern wheel offers comforting compensations.

Arranged within easy reach of the wheel are today's potter's tools and materials, not much altered by centuries of scientific progress: a well-wedged ball of clay, water, a large sponge, a cutting wire thin enough to pull easily

through clay, a clay modeling tool with wood on one end and wire on the other. A paring knife comes in handy, and if possible an elephant ear sponge for finishing touches.

The clay ball (a good-sized snowball for beginners) is planted firmly in the center of the wheel head. Some potters start on a plaster batte that has been carefully cast in a round form smaller than the size of the wheel head with special attention to an even thickness and a smooth top and bottom. This batte is attached to the wheel head by pressing a coil of clay around the perimeter of the batte forcing it to the wheel. If the batte is not perfectly flat and even it will unbalance the turning motion of the wheel. The advantage of the batte is that the partially completed pot can be removed from the wheel for the finishing touches, leaving the wheel free for further use. Professionals prefer throwing directly on the head and cutting the pot loose with the cutting wire.

With the ball of clay waiting in the center of the wheel it can be transformed into a

(continued on page 31)



Before cutting foot there is still time to alter bottom sides that may have been difficult to reach before. Then foot is formed by pressing pointed edge of wire tool into bottom of turning pot (held on head by clay coil) starting from center and working toward half-inch edge which will be left as foot.



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Larry Willard's bowl (left) makes use of incised design and carved lip. Carved feet and straightforward cut-out designs distinguish the other two vases, by Marie Despot.



Complements Beget Compliments



Students are cautioned to visualize, then reproduce action in their clay figures. Clay is soft and pliable, may be pulled, bent or twisted into dramatic animal forms.

"A complement supplies a deficiency and helps form perfect whole." don't stop with initial idea. A little thought will turn up ways to enhance t.



Detail such as skirt may be pinched out of main body or clay or more clay may be added for desired effect.



Colorful underglaze design enhances clay composition. Right, "Friends" is by James Carlson, age 15, Grade 8, Jane Addams School, Miss Viola Nelson, teacher.

By **EDNA MADSEN**

Supervisor of Art
Chicago Public Schools

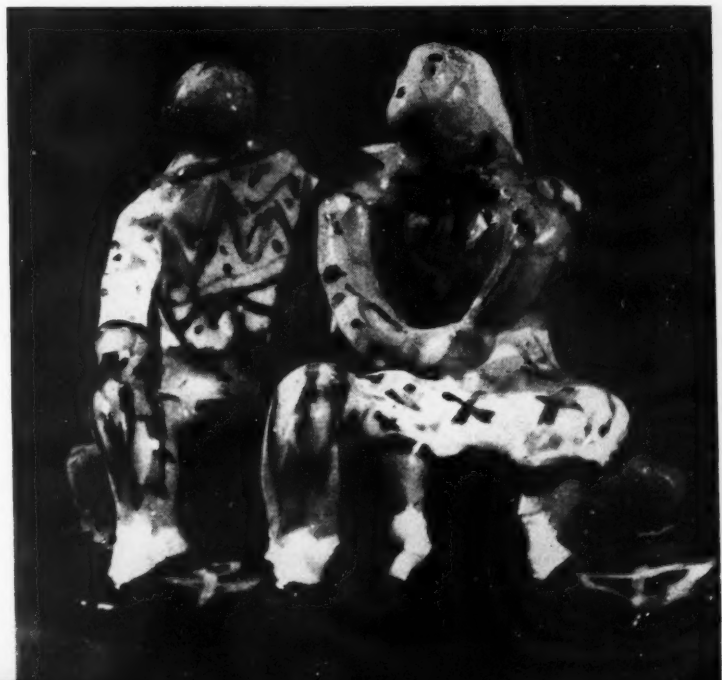
Did you ever consider how important it is to think through your idea and really develop it before you start working with materials? Whether you're painting a picture, writing a story or modeling in clay, it is well to survey your idea first so that you have a good plan to start with. This is especially true if you have used the materials before and have progressed beyond the exploratory stage.

As you think about your subject, ideas for enhancing its beauty will come to you. What may be added to complete or complement your idea to make it more interesting? (The dictionary says that a complement supplies a deficiency and helps form the perfect whole.) How would you complement your clay modeling idea in order to create a masterpiece in clay? Let's begin by asking ourselves some of these questions:

What is the figure doing? What does the figure look like? Where is the figure? Would several figures make a more interesting composition? Would subordinate figures of animals, birds or other people help complement your idea? How would you group them together in order to make an interesting composition? You can see how such a story in clay when really thought out first can lead to an interesting clay composition.

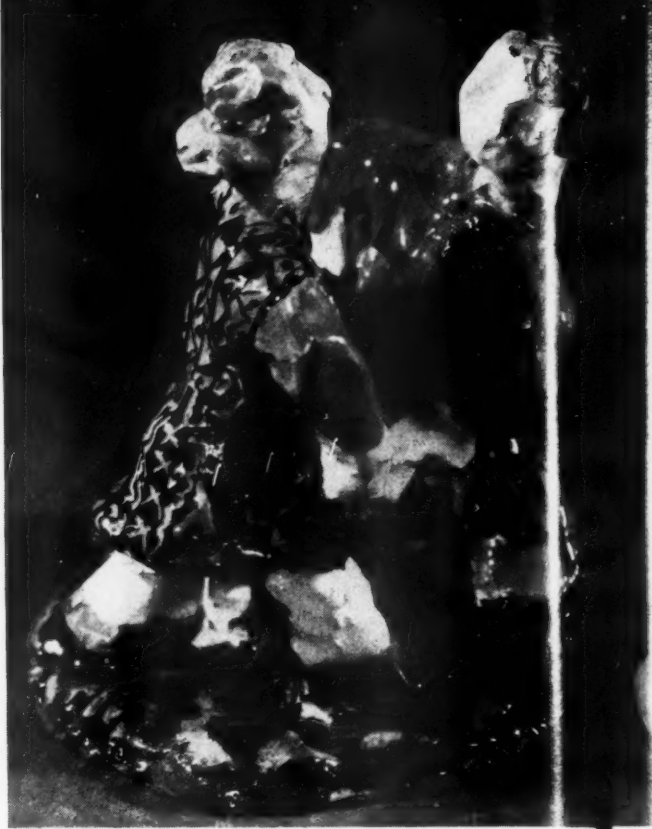
Here are some ideas to start with. How can you develop them?

- (1) Feeding the pigeons in the park
- (2) Practicing new dance steps





"Boy Takes His Dog Out"—by Richard Carlson, Grade 8B, Jane Addams School, Dist. 17, Miss Viola Nelson, teacher.



Two dancing figures are modeled by Barbara Ratz, Grade 7A, Taylor School, Dist. 17, Mrs. Nora Nash, teacher.

- (3) Playing my favorite musical instrument
- (4) Sweeping the sidewalk
- (5) Feeding the baby
- (6) Trying on a new Easter hat
- (7) Buying a new pair of shoes
- (8) Teaching my dog new tricks
- (9) Landing on the moon
- (10) Studying my science lesson
- (11) Water-skiing on the lake
- (12) Playing golf, tennis, handball, etc.
- (13) Cheering at the football game
- (14) Constructing model airplanes
- (15) Hiking through the woods
- (16) Riding a horse for the first time
- (17) Enjoying the sun at the beach

Let's consider the last suggestion: "Enjoying the sun at the beach." In thinking through your subject, you might ask yourself some of these questions.

- (1) Would the clay composition include more than one reclining figure?
- (2) Would a standing figure combined with a horizontal resting figure make the composition more interesting?
- (3) Would a subordinate figure of a child playing in the sand add to the whole?
- (4) Would you like to add several picnickers to the composition?
- (5) Would the addition of a dog make it more interesting?
- (6) Would the addition of a beach umbrella help hold the composition together?

What other angles might you add to your subject? Although you may be thinking in terms of several figures for your clay composition, remember that a single, beautifully designed and rhythmic figure may be a masterpiece—a boy playing ball, a girl playing a musical instrument or a boy shoveling snow.

As we think about our idea we must also think in terms of our material. Do you know the design limitations as well as the design possibilities of clay? Clay lends itself to simple, solid and somewhat heavy rhythmic constructions. The subject must be reduced to its simplest basic form. What you see in nature should be redesigned in terms of clay. Experience has taught us that extremely delicate and slender clay constructions have a tendency to fall apart or break off before they are fired.

Before the class actually uses clay, let's make advance preparation. Many of the good housekeeping activities and apportioning of clay and other materials may be delegated to efficient student helpers. The moist clay will be divided up so that each student will start with a ball of clay about the size of a baseball. Additional clay will be stored in a crock or clay bin, ready for use.

The clay should be soft and pliable. If it is too hard it should be put aside in a covered crock or pan and covered with water until it is the right consistency. The hard clay will absorb the water.

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Allen Badner creates "The Golfer". Allen is Grade 7B, Caldwell Branch at Avalon Park School, Mrs. Mary Sweeney, teacher.



After figure has been bisque-fired, clear transparent overglaze is applied and clay work is fired for the second and final time.

"The Baseball Game" is a group of figures mounted on linoleum by Al Sabala of Philip Sheridan School, Mrs. Marie Madden, teacher.



Let's Sling A Bowl

By DAPHNE JONES

Fourth and Fifth Grade Teacher
Hardy School
San Diego, Calif., City Schools



At mid-point of sling-bowl project, classroom may present aspects of decor not in keeping with best school environment, but end results are well worth a few days of unsightliness.

Most fourth-graders are enthusiastic when given the opportunity to work with clay. As in so many activities, they like to have a certain amount of guidance while retaining a reasonable amount of freedom. Our sling-bowl experience pretty well fitted these specifications.

Each child brought from home ten clothespins, a piece of cloth similar in size and texture to that of a dish towel, one table knife, a ten-inch piece of dowel or broomstick and a shoe box. Their cloths were spread over desk tops and each pupil was given a "slice" of clay about a half-inch thick "right from the sack". With two rulers on either side of the clay as guides over which to roll, the children rolled out the clay as one would pie crust, never letting it become thinner than the thickness of the ruler.

When the desired thickness and spread had been attained, the children then cut out a free form or followed a paper design made earlier. (Scraps of clay left over were later made into earrings, pins and other pieces of jewelry.) They

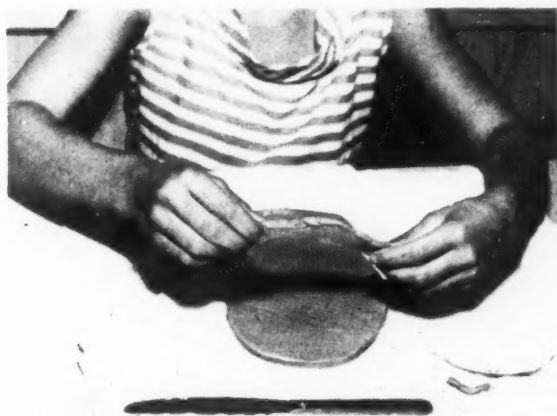
carefully gathered the corners of the cloth and placed the cloth and clay inside the box. They secured the cloth to the sides of the box with clothespins and at the same time regulated the curvature of the sides of the bowl. By cautiously moving and adjusting the clothespins, the children created many interesting and unusual forms.

When the bowls were "bone dry" they were removed to be smoothed with small pieces of dampened fine sponge. Some children wished to retain the texture that the cloth had left imprinted on their bowls. The cleverer ones had realized from the beginning that this texture could be achieved and they had purposefully patted the cloth into their clay immediately after the bowl was cut. (Wood grain from some rollers also gave an interesting texture.)

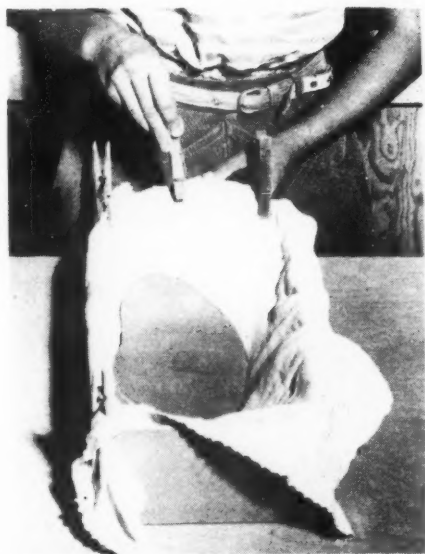
Most breakage occurred during this period of sponging. Teachers should expect a certain amount of disappointment on the part of those having bad luck but in most cases good sportsmanship will win out. Usually a child quickly and



Rulers serve to support rolling pin to insure even thickness for clay slab. Student at right lays her design on clay and cuts it out with table knife.



Often just right size to cut into shapes for jewelry, trimmings from clay slabs are laid aside, kept moist.



Tightening or releasing cloth support controls depth and slant of bowl's sides. Right, feet are cut from moist clay balls to be attached to leather-hard bowl.





Students later make scraps of clay into earrings, pins, other jewelry, thus salvaging material, rolling-out time.

eagerly resolves to "make something" out of what is left—and is pleased to have two little dishes instead of one big one.

After the sponged pieces were allowed to dry completely, they were painted with colored glaze while still in the green ware stage. Some pieces were painted with underglaze and then painted with clear glaze. Many ideas for decorating were proposed. Some liked the stark white with bright dabs of color, others favored the rich brick of the

terra cotta highlighted with pumpkin yellow, and still others preferred paint on the entire inner surface and no color on the outside—but always with reservations, for the color in the jar is deceptive.

Then came the magic day—the day the first pieces came back from the kiln. The brilliant colors the children now viewed brought words of wonder and great sighs of satisfaction. No matter the "artistic quality" as judged by adult standards—they liked them all.

I felt that certain children gained a long-needed status within the group when the class voiced praise and admiration of a particular piece. Not only were deserving ones admired but also there seemed to be a certain class pride in the entire project—a feeling of accomplishment and well-being.

So rewarding was this first experience of "slinging" bowls that we're trying it again. I complimented the class on their finished products, casually asked if they'd like another shot at it, and received the always welcome murmur of the affirmative and the eager nods of all those heads. I then asked in a calm matter-of-fact voice if they'd like to "put legs on their bowls this time".

Never again do I expect to see so many incredulous, surprised and bewildered faces gathered in one classroom. One cannot begin to describe the almost imperceptible, yet visible, mass rise out of chairs—and at almost the same time a realization that this idea might not be too far "off base" after all. Once the idea had seeped in, one could almost see the little wheels begin to turn. First one idea and then another about how to do it came forth.

When all was said and done, the boys and girls decided that they'd need sturdy legs to hold up heavy clay bowls—nothing "long and skinny." (continued on page 42)

Finished pieces by fourth and fifth grade students show variety of decorating ideas. Two smaller trays may result if student breaks his original clay slab.



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We Struck Pay Dirt in the Park



By **CHARLES R. ROSE**

Arts and Crafts Instructor
Jefferson School, Elyria, Ohio

Early each fall and spring, volunteers from the Jefferson Junior High School art classes make a picnic excursion to a nearby park to "mine" clay. It is a picturesque spot with a view of cascading falls and an inviting "Indian cave" and all along the shallow banks of the Black River the deep-colored clay lies waiting.

Intimate association with any material in its native state does much to increase sensitiveness to its qualities and understanding of its uses. In the classroom we find that students who have helped dig and prepare clay have more fun using it, express their ideas more easily, are more inclined to help others and take greater pride in the finished work.

Few areas of our country are without some kind of clay. Red firing clay is most common. It is easily prepared, not overly fragile and suited to a variety of finishes.

Our students carry the dug clay in bushel baskets to school where it is processed. After it is dry, all lumps are broken into a rubbly state, then passed through wire screen (preferably two: one very coarse, the other like window screen).

An alternative is to grind it through an old hand-operated sausage grinder. At this time foreign matter is taken out:

"... the sticks and stones,
the leaves and bones,
the snails and scales
and lizzards' gizzards..."

Poured into a tub, the remaining "pay dirt" is covered with water and stirred. After it has settled for a day or two, the liquid is poured or siphoned off. Carefully tended every day thereafter—stirring, checking consistency, kneading—it is finally ready to shape. If some clay is to be used for sculpture, the naturally "grogged" clay is set aside for this purpose. If a smoother clay is desirable, it is poured in its slip state through a rather fine kitchen sieve or flour sifter, the lumps being discarded.

The finished raw clay now may be used as any other for sculpturing, wheel-throwing or even slip casting (for this a touch of water glass is added). The finished products seem to have an inner life since the clay is not overly refined and it remains colorful and textured. It feels good to the touch—and it is ours from the ground up.

No doubt native clay lies right in your back yard. Blue, grey, yellow, white or red—it is all usable. Dig some, run a series of tests for firing ranges (and hazards), glaze some samples for controlled or experimental effects, try mixtures with sawdust or cereal to lighten the body—but do try it. ■



One of the joys of working with clay is its amiable response to pressure, and how it feels in one's hands.

What Shall

Which of the rich possibilities that lie ahead shall we try first? Youngsters at almost any grade level know success with simplest and most natural pinching method, quickly work up to coil, slab procedure.

By EDITH BROCKWAY

Working with clay is included in the art program of almost every elementary and secondary school. The response of this plastic and impressionable material in the hands of the child gives ample opportunity for self-expression and creativity. As he feels the clay in his hands, he immediately begins to make some shape, either by rolling, pinching or flattening. Out of these elementary movements come the basic methods for fashioning art objects of lasting value.

The simplest and most natural way of working with clay is the pinch technique. A ball of clay is worked with the

Experimenting with textural effects helps student choose means of completing a clay object. Outside surfaces may be smoothed, roughened or imprinted, or separate bits of clay may be built into relief.



We Do With Clay?



Simplest and most natural way of working with clay is to squeeze and pinch it until it takes shape we wish to make. Lower grade levels use this method to good advantage.

More advanced students may adapt pinch method to make turned pottery on a hand-powered wheel. Coil method is suitable for initial shaping.



hands until it takes a shape, ranging in appearance from a simple bowl to some unnamed animal form. Children of the lower grade levels use this method to good advantage. Objects may be dried and painted or glazed and baked, according to the equipment on hand and the abilities of the sculptor.

Another basic technique is the use of the coil. In this method the clay is first rolled in long thin coils which will form shapes of all sizes and descriptions. On a rolled clay



Juanita Rogers, helping art teacher in the Decatur, Illinois, elementary schools, demonstrates to fifth-, sixth-graders how to make coil of clay and use it in building up forms.

base, forms may be built up to a desired height or breadth by welding the coils together. The outside surface may be smoothed or roughened or imprinted with various objects to give different textural effects. Other coils or designed clay pieces may be added for decoration.

The slab method also has many uses. First, the slab of clay is rolled with a rolling pin to the desired thickness—three-eighths to one-half inch. The thickness may be regulated



Coil process usually uses slab base to build on. From this base, objects may be made by welding coils of clay from base to top.



Two yardsticks are used under rolling pin to insure even thickness. Shapes may now be cut to be molded or welded to other slabs.



and on. From this beginning a great variety of
y from base to height, shape required by plan.



to in ire even thickness for clay slab. Designed
ded o ther slabs to form more complex objects.

MARCH, 1960



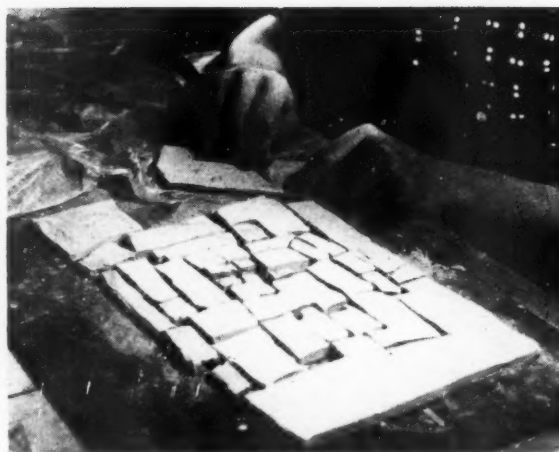
Mrs. Rogers shows that rolling string into clay surface gives
interesting effect. Removed from dry clay, string leaves line.

Sag mold (or "sling", page 16) draped in box free-forms bowl.
Loose weave of sack material textures reverse side of clay.





Animal shape cut from rolled-out clay slab, formed over tubular shape (drinking glass), needs support until dry.

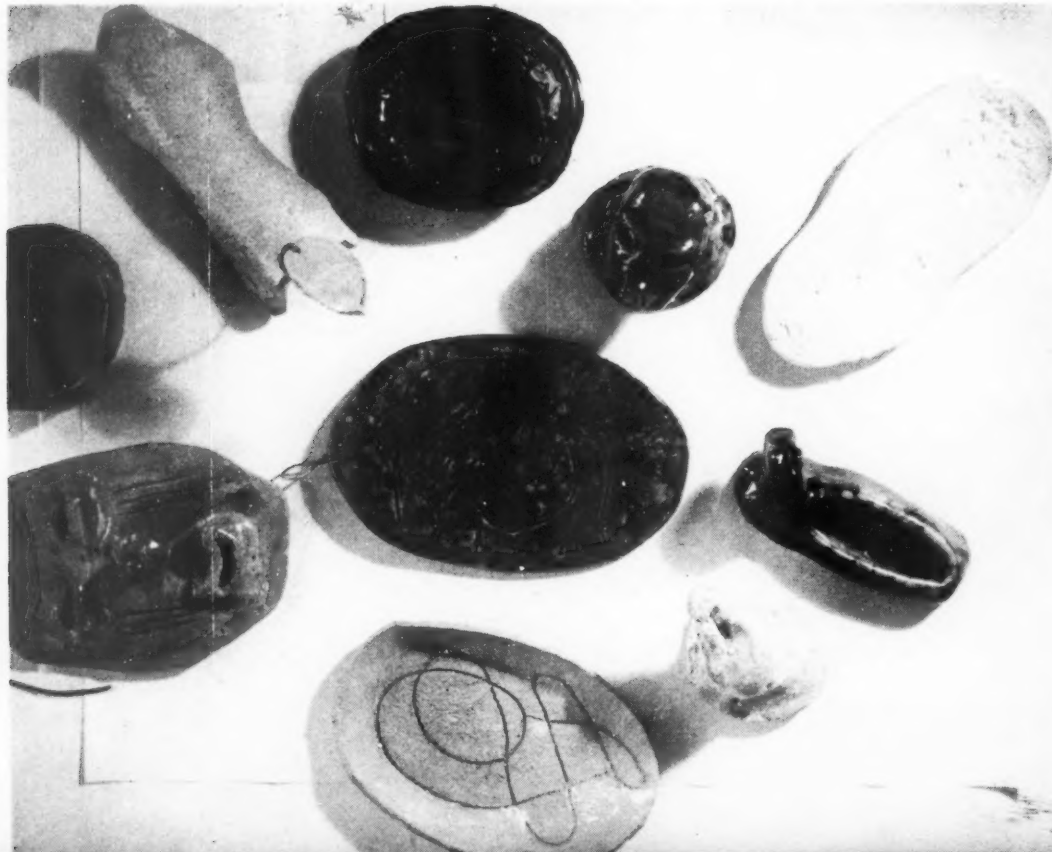


Another use of slab method is to make tile for mosaics. Here cut-out and dried design is smoothed before firing.

by rolling the clay between two sticks of equal height. Now it is ready for cutting into any shape desired for making slab mold dishes, boxes, tiles, pots, ash trays and decorative pieces. Different dish forms may be made by shaping the cutout slab over a plaster or wet sand mold, or by laying it in a sag box. Unusual effects result from twisting and

drying the clay over bottles or other objects. Rectangular pieces of clay may be welded together with liquid clay for making boxes, flower containers or any article that has sides. Many variations of these methods have been and can still be worked out by the student and the instructor as they experiment together with this wonderful material. ■

Completed objects made by seventh- and eighth-graders represent use of pinch, coil and slab techniques of clay modeling. Dish forms are made by shaping slabs over plaster or wet sand mold or laying in sag mold.



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By F.

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DRAWING

By F. LOUIS HOOVER

A child's first drawings are his first steps in learning a new language. His efforts will not be understood by the average person any more than his first attempts in speech but they should receive the same encouragement and praise.

Beginning with the scribble stage most children seem to follow a similar developmental sequence in learning to draw. However, the particular stage of development on entering kindergarten may vary greatly. The child who has never been given drawing materials or encouraged to use them at home may still be in the scribble stage. Other children from the first day will produce recognizable representations and be eager to give explanations or tell stories about them. It is important, therefore, that the kindergarten teacher and the parents understand the various stages the child goes through in learning to draw.

When the young child is first given crayons and paper he learns that by pressing the crayons to the paper he can make marks. It is a pleasurable activity and he happily fills one sheet after another with meaningless scribbles. If his attention is distracted, his hands may continue their uncontrolled activity with lines swinging here and there, on the paper and now off the paper completely. *This is the first step in learning to draw and his efforts should be highly praised.*

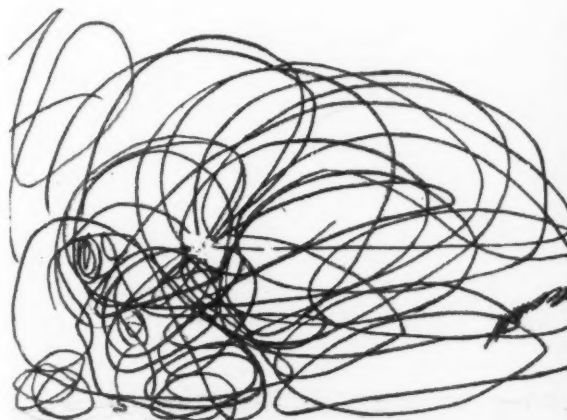
"What strong happy lines you are making!"

"I like the way you swing your lines clear across the paper."

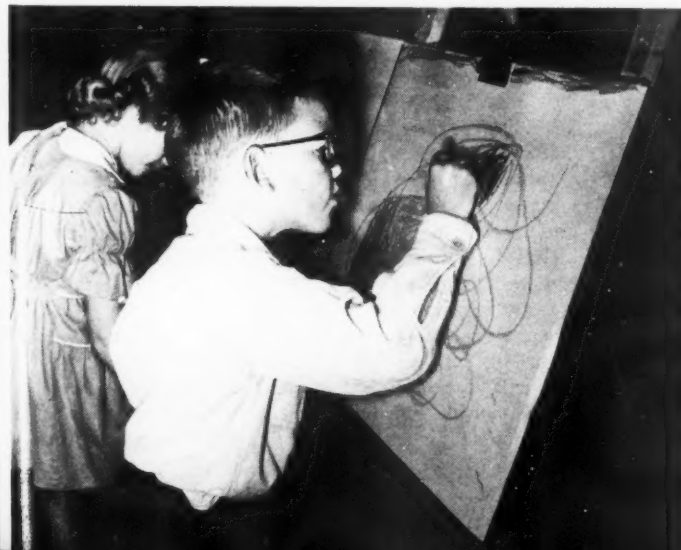
To bring off drawing classes successfully, we must respect and completely enjoy child's original, unique expressions.

A critical remark at this point may well discourage future efforts. Don't try to hurry him into representational drawing. This will come in time.

The child gradually becomes conscious of the fact that he can control the direction of his lines. He learns that he can turn and bend them at will. Now his lines begin to show some degree of planning. The edges of his paper become a frame within which to work. His lines may go up and down and side to side to repeat the verticals and horizontals of the paper.

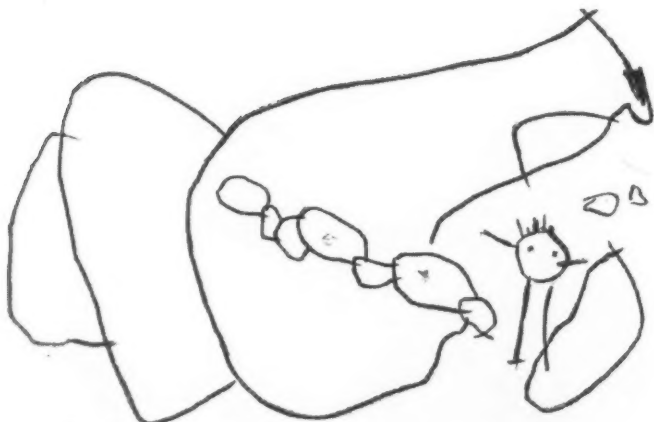


While first scribbles lack control, this important early step should be praised. When child learns he can make up-and-down, sideways lines, he consciously arranges them on paper.





When we compare drawings or point out that one is better or more "real" than another, we discourage the originality and creative thinking we mean to foster. Child's first drawings of human beings lack bodies (photo at left, below). Three-eyed man at right reminds us that child draws not what he sees but what he thinks is important and what he understands.



He discovers that he can turn a line back on itself to make a circular shape. Now he fills his paper with these new curved forms, often joining one loop to another in an endless chain.

But don't expect consistent progress each day. A sheet filled with carefully drawn lines and circular shapes suddenly may be completely covered with seemingly vicious scribbles. And don't be surprised when a beautiful drawing is crumpled and thrown in the wastebasket. Remember, the child is not producing something for us but for himself. He will not always want to share it.

Often a child's first representational symbol is a human figure. One of his circular shapes will be given eyes, two lines to represent arms and another pair of lines to suggest legs. No body; just head, arms and legs. It may be Daddy

or Mother or "me". With only slight variations the symbol becomes a dog, a cow or a horse.

These first symbols are a giant step forward and should be received with much praise and encouragement. But at this point the adult must keep in mind that *the child is drawing not what he sees but what he knows and understands*. Only those aspects of the objects that are meaningful to him are included. For example, in a drawing of a person the head is important because it contains the eyes for seeing, the nose for smelling and the mouth for eating and talking. At first the ears may not be included since he is not so conscious of the act of hearing. But the youngster who is constantly urged to comb his hair or the girl whose mother spends considerable time in brushing and arranging curls may include this aspect of the figure in exaggerated form.

At first the body itself is of small consequence and is usually omitted in the drawing. Later it may make a first appearance in a much smaller form than the head. Remember, the size of objects in children's drawings is determined by their importance to the child.

As children develop interest in drawing people and objects around them, they may be encouraged to draw themselves involved in various activities such as brushing their teeth, eating candy or skating. Our objective is not to teach the young child how *we* think he should draw, but to encourage him to express *his own ideas* in his drawings *in his own way*. His way is not our way nor the way of other boys and girls in the classroom.

Drawing is a completely personal activity and to have successful drawing activities we must respect and completely enjoy the child's original way of drawing anything. The finest compliment we can give a child's work is to recognize its uniqueness.

"What a fine drawing you've made, John. I like it because you have drawn it in your own way. It isn't like any other drawing in the room."

The moment we begin to compare drawings by children, pointing out that one is better or more "real" than another, we are discouraging the very originality and creative thinking we seek.

Drawing is a basic activity in the kindergarten. For most children it is a natural, happy activity. We laugh *with* children about their drawings, but never *at* them. We genuinely like children's drawings and let them know that we enjoy their work.

Remember, the *good* drawing is one in which the child puts something of himself. It is an honest original thought of his own. ■



Children soon draw themselves in various situations—perhaps eating candy, skating, grumpily brushing teeth.



What makes a cow look like a cow? Milk bag, faucets and pail, of course. Unusually fine drawing by five-year-old shows his powers of observation, captures fright and feeling of snorting, pawing animal.



CLAY



MA 10



CLAY CONSTRUCTION—Susan Singletree

JUNIOR ART GALLERY

FOR YOUR BULLETIN BOARD



When I was a child my main interest in clay was how many mud pies I could make from a certain amount of it. As I grew older it became great fun to walk through.

My tastes in art and interest in clay grew until finally in my last semester in high school an opportunity came to try my hand at it. I have always been interested in pottery and sculpture and when I found a technique that combined the two I was naturally attracted to it. It is based primarily on the principle of slab constructions. At first it was discouraging; pieces of clay refused to stick or cracked in the kiln. With patience and practice I began to get the parts to stay in place.

In this type of sculpture space and form are very important. The spaces must be well enough designed to leave the right intervals between the forms. The piece must allow space to move through and around it. Positive and negative spaces and their relationship are the main problems in this kind of designing.

A certain satisfaction began to develop and I started to enjoy and really want to keep working on my design. Deciding on the patina after the biscuit firing became a major decision in my life. Too much dark would ruin the spacing, too light would destroy the shadows.

Now my interests have developed further until I feel that continuing to work in sculpture is an important phase of my education.

Susan Singletree

Age 18
Pershing High School
Detroit, Michigan



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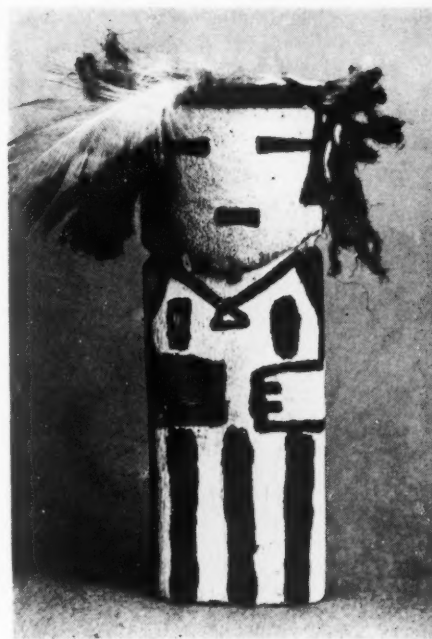
ART APPRECIATION SERIES
FOR YOUR BULLETIN BOARD

If you have traveled the highways of Arizona, you have probably seen in trading posts and gift shops these small wooden dolls with masked faces and bright colored garments, called *Kachinas*. This is the name the Hopi Indians gave certain gods or supernatural beings who they believed lived somewhere in the neighboring mountains.

During Hopi religious ceremonies, the spirits of these *Kachinas* are supposed to visit the Indian villages. Actually they are impersonated by masked dancers. The small wooden dolls are made in advance of the ceremony to be carried and displayed as symbols of the real *Kachinas*. Each *Kachina* has a name and a special and distinctive type of costume. There are more than a hundred different *Kachinas*. Sometimes the masked *Kachina* dancers visit the homes of children to see if they have been good.

The Hopis are only one of several tribes of Indians generally known as Pueblo Indians. They began to build their villages in the southwest more than a thousand years ago. Instead of individual houses, they created huge cliff dwellings somewhat similar to our apartment houses. Some of these were large enough to house ten or fifteen thousand people.

For many centuries the Pueblo Indians have been farmers with a very stable kind of life. They organized their society into families, clans and clubs. They appointed chiefs and priests to govern their affairs. Their life and religion centered around the changing seasons. There were dances of thanksgiving for good harvests and special ceremonies and rituals in which they begged the gods to send rain. They developed poems and legends which were passed down by storytellers from one generation to another. They were skilled artists and craftsmen, especially in the fields of pottery and weaving. Truly the Pueblos lived in harmony with nature and the spiritual guardians the *Kachinas* represent.



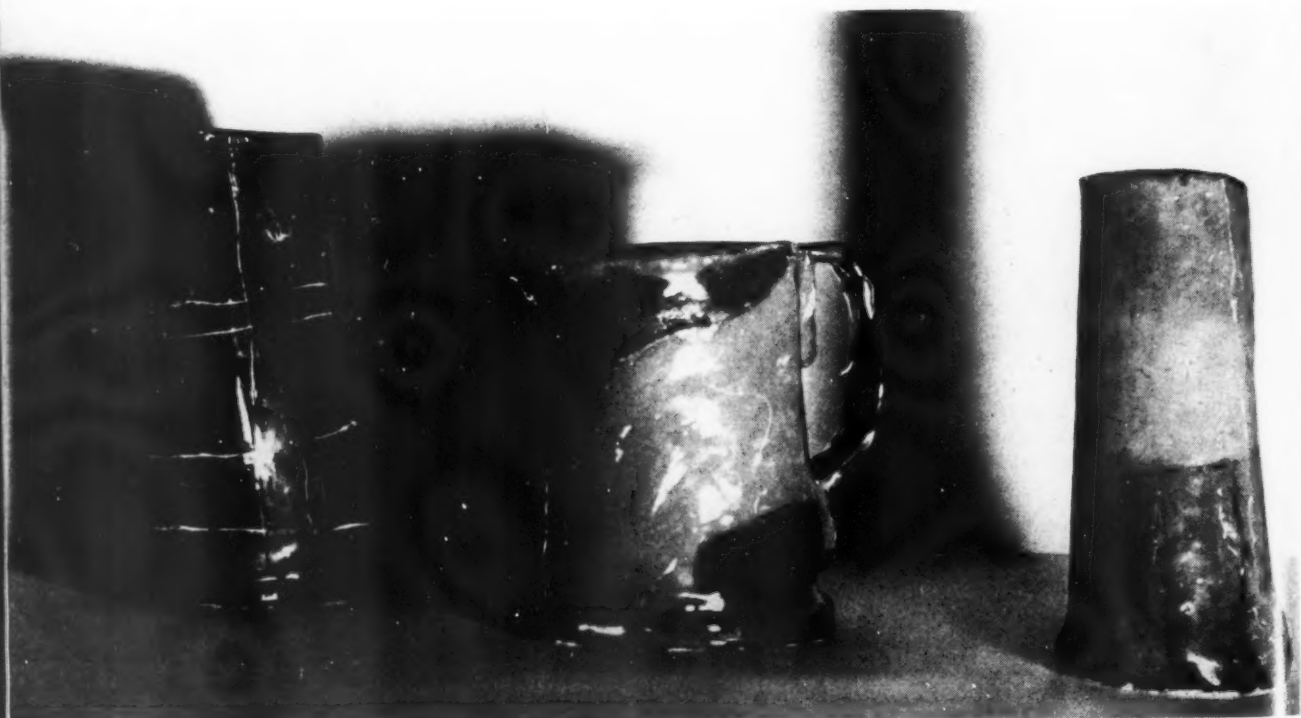
Kachina Dolls
are reproduced through
the courtesy of
The Chicago Natural History Museum

Sixth-graders' desire and ability to bend clay to their will create force to be reckoned with. By simple method they produce some irresistible objects.



Piece of string or wire is useful for cutting off slices of pre-wedged clay which is then slabbbed with rolling pin.

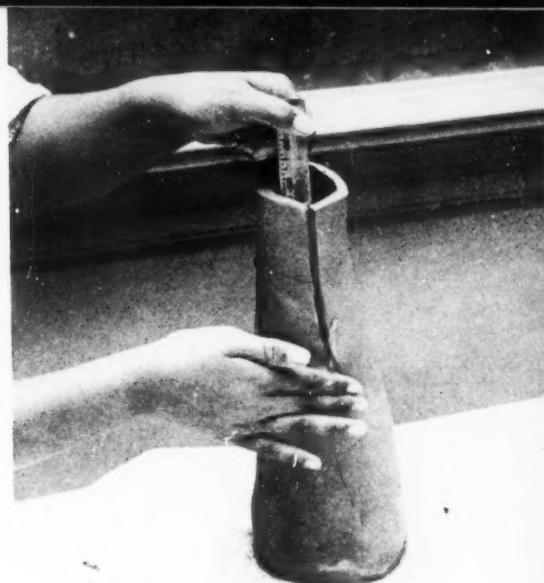
ISN'T THIS A PRETTY PITCHER?



As utilitarian as they are decorative, pitchers are made watertight by final firing of clear glaze—and it is clear glaze that gives them shiny surface.



Each student designs on paper ceramic object he wishes to make, cuts paper pattern of each part to use in cutting out his forms.



Next she assembles part, introducing small coils of clay and joining seams with slip.

BY MARJORIE KELLY

Supervisor of Instruction
Livermore, Calif., School District

Teacher: Margaret Havens
Fifth Street School
Livermore, Calif.

Photographs courtesy
Alameda County Schools Office

If you want a clay project that yields big results but doesn't require much equipment, try this slab technique. All you need is clay, a knife, a piece of oilcloth, glaze, some imagination and a good design. With these materials Miss Margaret Havens' sixth grade class made pitchers, vases and mugs.

Begin the project by having each student design on paper the size and shape of the ceramic object of his choice. When this step is completed, have students make paper patterns of each part of the object. Now that the planning is done, the actual work of putting the slabs together can begin.

The clay used in the Livermore schools comes pre-wedged and is packaged in 25-pound bags. If clay is in this form a piece of string or a piece of wire is very useful for cutting off "slices." Make the slabs an even thickness by using two guide sticks, rolling the clay between them with a rolling pin. A good surface to work on is the back side of oilcloth.

After the slab is large enough to accommodate the patterns, place them on the clay and cut out the parts with a table knife, carefully not cutting "in" or "out" around the pattern. Students ought to avoid impressing fingerprints on the slab to be used.



Children are using engobes (clay slip with pigment added) to paint designs on green ware. Others choose sgraffito effects.



With engobe design thoroughly dry, piece is fired, then dipped in clear glaze, re-fired.



Children congregate at cupboard to put away pieces and incidentally to see efforts of others. Whole school sees display of finished work.

In fact, the less the soft slabs are handled, the better the finished product will be.

When the clay has dried a little it will hold its shape without support, and it is then time to assemble the parts. Cross-hatch the edges of the slabs that are to be welded together, then apply a generous amount of slip (clay to which water has been added to make a gravy-like consistency) and press the pieces together. Make some small coils of clay and put them over the seam. Against a hard backing such as a ruler weld the coil and seams together. To shape a pitcher pull down the rim to form a spout, then add the handle.

When the clay piece is shaped and trimmed, it is time for

decoration. Miss Havens' boys and girls used engobes and clear glaze. Engobe is clay slip with pigmented materials added. The design is then painted on the green ware with engobe. Sgraffito effects are achieved by using a sharp tool to cut through the engobe exposing the clay underneath.

After the pitcher has dried thoroughly it may be fired. The final step is to dip the piece into a bowl of clear glaze and re-fire. This makes the pitcher watertight and gives it a shiny surface.

When the work was complete and on display in the art cases of the Fifth Street School, the principal, Mr. Lorimer, was heard to say: "Now that's a pretty 'pitcher'."



This projects yields big results with minimum of equipment. Process suits number of utilitarian objects such as vase and mug as well as pitchers.

Complements

(continued from page 14)

If the clay is too soft, it may be wedged or kneaded on a plaster batte. Whether the clay is old or new, it should always be wedged thoroughly so that it is of a uniform consistency and has no air bubbles in it. In addition to the clay the students will need pans of water, cleaning cloths, plenty of newspaper, modeling tools such as mat skewers or taffy apple sticks, paring knives or scrapers. Modeling tools are helpful but it must be remembered that fingers are the best tools.

If the clay composition is not finished in one period, it may be put aside on a plaster slab or pie tin and covered with a damp cloth or a piece of plastic to be continued at the next lesson. If the piece is not too large, it may be stored in a two-pound coffee tin or a covered container.

You are now ready to model a figure. There are two methods commonly used by students:

- (1) You may start with a ball of clay and pull out the head, arms and legs.
- (2) Or start with various-sized clay coils and attach them together to form a body, legs, arms and a head.

The first method is the easier and is often used first by the inexperienced clay modeler. The ball of clay is soft and pliable. From this ball of clay pull out a "bump" of clay and roughly shape the head. Locate the arms and pull out each one. Now locate the legs and pull them out. Pinch in the waist and shape the various parts of the body to proportions you wish.

As it stands now, your clay figure is probably static. In order to carry out the idea of your composition, your figure is to be doing something. How will you give it action? The soft clay may be bent, twisted, turned or pinched into any posture you wish. Bend the parts of the body a little and see how the character of your figure changes. The action may be very dramatic. Visualize the action first in your mind and then reproduce it in clay. You will find, too, that as you bend the clay it may crack a little. Cracks may be repaired by first roughing the cracked surfaces with a wooden stick, wetting the clay a little, and then welding or pressing the pieces firmly together.

To hold the figure upright while the clay is still moist, supports may be

made from wads or rolls of newspaper. If these supports are placed at points where the figure sags, they will hold it upright until the clay is hard.

In order to make a figure by the second method, from coils, we must first roll out the necessary coils:

- (1) A pair of legs (one long coil)
- (2) A pair of arms (one long coil)
- (3) A torso or body (one thick, cylindrical-shaped coil)
- (4) A head (a short, small coil)

The leg coil must be heavy enough to support the body. Begin the figure by bending over the leg coil so that the legs are in a standing position. Place the torso or body on top of the legs. Rough and dampen the surfaces so that the body is firmly attached to the legs.

Center the arm coil at the shoulder and securely attach it to the body. Finally, place the head on the shoulders. An important rule to remember is that whenever one piece of clay is attached to another, *always rough and wet the surfaces and press them firmly together with the fingers.* Do you know how to add action to the figure by bending it? Do you know how to support it when it sags?

Several ways of enriching the surface of your clay compositions should be considered:

- (1) Incised designs made with a pointed stick may be used to get the textural effect of fur, hair or other materials. In addition to this, interesting designs of plaids, dots, checks, stripes or other motifs may be repeated on the surface to give an interesting all over repeat design. While the clay is still moist, other found objects such as buttons, combs, paper clips, wire, pencils, etc., may be pressed into the clay in order to produce a variety of interesting designs.

- (2) Underglaze (a colored clay) may be applied with a brush to the surface of dry clay. In decorating the piece with underglaze:

- (a) Repeat colors. The color of the hair may be repeated in the base, etc.
- (b) Use color and pattern imaginatively. The artist redesigns what he sees in nature.

After the piece has been decorated and is thoroughly dry, it may be bisque fired. After it has been bisque fired, it is covered with a thin coat of clear transparent overglaze and fired the second time—and the work is done.

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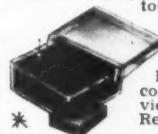


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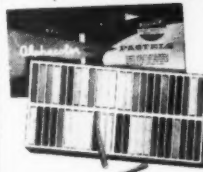
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BOOKS OF INTEREST AND AUDIO-VISUAL GUIDE

FIVES AT SCHOOL, Teaching in the Kindergarten, by Elenora Haegele Moore, G. P. Putnam Sons, Publishers, New York, 1959, \$4.75.

A better than usual approach to art in the kindergarten is to be found in *Fives at School*, by Elenora Haegele Moore, a book of general methods for teaching five-year-olds. With strong emphasis on creative expression, the author points out ways in which a child can work freely when the teacher understands his artistic behavior.

Teaching situations in the kindergarten, according to Mrs. Moore, can be classified generally as being of two types: downtown and suburbia kindergartens.

She believes that art experiences for children must be developed in terms of many needs. Because of the broader experiences of children in suburbia, a more challenging but not more sophisticated art program is suggested. To the downtown kindergartens (usually from low-income families) a rich art program is all the more rewarding.

Often kindergarten teachers claim they must demonstrate an art activity for children to follow or else distribute patterns. They say that otherwise the quality of art will be poor. This, quite wonderfully, gives Mrs. Moore a chill. She points out that only the lazy, insensitive or incompetent teacher resorts to such devices. The child is usually the best judge of the art quality of his work. She deplores the use of child art to "put on a show" for parents or other teachers.

■ ■ ■

WORKING IN WATER COLOR, produced by the Art Department, University of Wisconsin. Color, sound, 18 minutes time. International Film Bureau, 57 East Jackson Boulevard, Chicago 4, Illinois. Rental \$12.50, sale: \$175.00, 1959.

Certainly one of the best films in some time, *Working in Water Color* is one art teachers are bound to welcome. Produced at the University of Wisconsin, the film is sensitively developed technically and educationally. Its central purpose is to stimulate thinking about the possibilities of the medium. No attempt is made to prescribe a technique; instead, the spectator is given an over-the-shoulder-of-the-worker look at water color used on different kind of papers, on various types of brushes and in combination with such materials as ink, sand and rubber cement. The effect is one of freshness and exploration. A well-written script points up the processes where exposition seems needed. Good color and cinematography enhance the film. *Working*

IVAN E. JOHNSON

Professor and Head
Department of Arts Education
Florida State University, Tallahassee

in Water Color presents an often-filmed medium in a way that art teachers find consonant with good teaching.

■ ■ ■

PAINTING, MATERIALS AND METHODS by Alexander Abels, Putnam Publishing Corporation, 2 West 45 Street, New York 36, N. Y., 1959, \$1.00.

While there are a number of good books on the materials and methods of painting, there are few so appropriately written for beginners or the high school student as Alexander Abels' *Painting, Materials and Method*. In its 45 pages, the author has compacted much valuable information about the characteristics of oils, pigments and emulsions and the painting processes for which they are best suited. Traditional as well as some of the newer experimental media are presented. Each painter has his own personal approach to painting through the choice of colors; Mr. Abels outlines possibilities but avoids any rigidly prescribed palette. The conciseness and clarity of presentation in this little book are noteworthy.

■ ■ ■

THREE DIMENSIONAL DESIGN, The Art of Louis Wolchonak, Harper and Brothers, Publishers, 49 East 33 Street, New York 16, N. Y., 1959, \$8.50.

An examination of *Three Dimensional Design* is apt to raise questions, if not some eyebrows, among art educators. Louis Wolchonak envisioned his book as a how-to-do-it book, with its 1,000 illustrations a reference for craftsmen, interior designers, architects and other related artists. Actually, it is one person's perception of forms transposed to "three-dimensional" drawings of a wide variety of objects and structures. In the hands of an uncreative person, the illustrations (of which there are 1,000) might induce geometrically static imitations, rather than personal exploration and involvement of one's own statement of things perceived. *Three Dimensional Design* suggests, however, the value of personal sketchbooks containing our continuous observations and interpretations of the world around us. The drawings we make may not end up in jewelry, ceramics or sculpture, but the opportunity for exploration enriches us immeasurably.

■ ■ ■


PICTURES TO LIVE WITH by Bryan Holme, The Viking Press, Inc., 625 Madison Avenue, New York 22, N. Y., 1959, \$4.50.

M. Holme has selected an interesting group of illustrations for his text. The book is organized around such topics as: pictures of Early America, sports and athletes, the machine age, etc. Such a book as this would be widely used in a school or public library.

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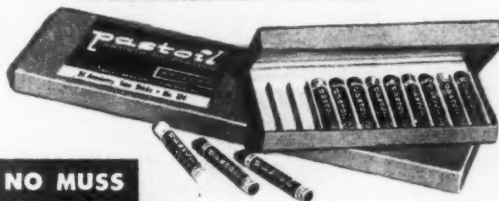
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Although the examples of layout and design are trite, the text encourages readers to experiment and strive for a creative effect. The information on bookbinding and papermaking is interesting. ■

glamorous pot, the potter must decide whether to "flick" or to "kick". For beginners no one will argue that a reliable electric wheel with variable speeds is an advantage. Flick the switch, step down on the variable-speed pedal and away we go. Also potters or

Flick or kick, the wheel must be at maximum speed, relative to the individual potter's control, for the first stage of throwing the pot—centering the ball. In this stage the uneven ball of clay spins swiftly on the wheel (smoothly turning counter-clockwise) and is evenly shaped by the steady pressure of the potter's hands. His right hand touches the clay with the outside of the palm while his arm is rigidly braced on the edge of the wheel or some other support or his own hip. The left hand with a slight downward pressure on the clay prevents the ball from sliding sideways and exerts most of its energy at this stage supporting or bracing the right hand. The right hand is



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the outside hand and depends on outside rigid support while the left hand works inside the pot. With the elbow usually above the pot the left hand must somehow learn to control itself and work with the right hand. During this entire operation the clay and the potter's hands must be sponged frequently so the clay will be encouraged to shape itself smoothly on the hands rather than to drag and pull.

If the two hands work well together like two good parents, supporting each other, remaining firm rather than yielding and conforming to the bumps and whims of the unformed clay, the ball will soon be persuaded to a well-balanced shape, solid but ready to be opened and raised. An important consideration in centering is adjusting the shape of the clay ball to accommodate the final shape of the pot. For a slender vase, shape the ball vertically, forcing it up by inward pressure of the hands on the sides of the ball. For a flat bowl, shape the ball horizontally by downward pressure of the left hand while the right hand supports the sides of the ball. The final check for true centering is to brace one arm and gently touch the revolving ball. If the clay is centered, the touching finger will impress all parts evenly.

Opening the clay ball requires less wheel speed than centering. Both hands, kept wet and always supporting each other, glide smoothly on the balanced ball of clay while one thumb probes the top surface for the center of the ball. When the thumb no longer rides around the revolving clay but remains motionless in the center the potter slowly allows the thumb with the support of the other hand to penetrate into the body of the clay. Some potters may use another finger to open the pot or even the whole hand with the middle finger acting as the guide. The depth of the opening depends to some extent on the final shape of the pot.

At least enough clay should be left at the bottom to permit the carving of a foot. It is impossible to see and difficult to measure the thickness that is left, but with practice a sense of feel can be developed. As a guide for the beginner, a pin pressed vertically through the bottom to the batte provides a fairly reliable measure.

The next step is a combination of enlarging the opening and beginning the raising. This is done by gently forcing both thumbs (or one hand) down into

the pot while the other fingers (or hand) support the outside wall. Here the first true drama of the potter's wheel takes place. The thumb or hand on the inside of the clay ball exerts steady outward and upward pressure as it returns from the bottom of the ball and is met equally in pressure and place by the fingers on the outside wall, forcing the clay to form a wall and to rise.

The process of rising has begun. The wheel should be slowed another notch and extra caution exerted because this is the point of no return in the creation of the pot. Mistakes become increasingly difficult to correct and whatever shape is started at this point is not easily changed. Since water will now weaken the walls, the outside hand will be kept dry except for the fingertips, and the inside hand will be moistened only enough to avoid pulling on the clay as it works over the inside surface. The left hand starts at the bottom center of the pot and led by either the forefinger or knuckle, presses down evenly on the turning pot forming a flat or curved bottom as desired. As it moves outward to the developing wall it is met and opposed with equal pressure by the right hand on the outside wall. The steady pressure between the two hands rising slowly upward make the clay walls thinner and magically force the pot to rise.

The rising is continued, always from the bottom of the pot upward, until the walls are approximately one-half inch thick. Again, the thickness always relates to the final shape of the pot and more or less thickness allows for more or less expansion of the shape. If the walls are stretched too thin they will be too weak to work with. The lower wall will naturally be thicker because it is more difficult to bring the clay up from the bottom and it is advisable to allow this thickness because of the extra strain on the bottom during the shaping process. The unwanted thickness is easily trimmed away in the final stage. Any water that has collected in the bottom of the pot may be swabbed out with the sponge attached to the end of a stick.

If the top of the raised pot is uneven, the clay ball was not perfectly centered, opened or raised. This can be corrected by trimming the top edge with the cutting wire held taut between two hands while the wheel is turning slowly. The wire should be applied to the

uneven top gradually and removed gradually. It may be necessary to trim away an extra amount due to the difficulty of trimming less than about a quarter-inch.

Finally the pot is raised and appears even. The courageous student takes the cutting wire between his hands and relentlessly slices his pot vertically in half, exposing the side view of the walls and the truly significant structure of the pot. How else can an honest evaluation be made of what he actually accomplished? Examining the exposed walls of his pot will teach the student more than hours of lectures and reading.

Before raising his next pot the student will want to draw the final shape he hopes to make and adapt the centering and raising to his plan. There is no skill and there can be no art if the pot is allowed to control the potter.

After the next pot has been raised, the speed of the wheel is further reduced to a slow steady pace and the shaping begins. As in raising, the fingers of both hands oppose each other with the difference that in shaping the pressure is not always equal. If the pot is to belly

out the inside fingers increase pressure gradually and tend to move slightly above the outside fingers which relax some pressure but continue to guide and control the outside shape. If the pot is to curve inward, the reverse takes place, with the hands always working from the bottom. Very little water is used at this stage because of the danger of weakening the walls. For certain extended shapes it may be necessary for the pot to dry in place for a few hours to strengthen the wall before the shaping is continued.

During the shaping process the clay is stretched to its ultimate plastic performance, to a degree unapproached in any other form of clay work. The potter must be sensitive to its limitations as well as its capabilities. If the wall is stretched too thin it will collapse; if the shape is extended too far from center it will cave in. Yet if the walls are left thick and cumbersome and the shape is timid and unimaginative the pot will remain a weighty, lifeless thing.

Shaping the pot is the truly creative phase of throwing but its success depends on the technical steps that precede

it. Sloppy or inaccurate craftsmanship will surely handicap the creative impulse of the potter. The shaping comes about as two hands feel for each other in the dark, constantly maintaining a delicate and steady relationship. Although the creation of the truly aesthetic form is reserved for the rare artist potter, anyone with determination can experience the thrill of throwing a pot and feel the satisfaction of forming a pleasing shape.

The texture of the pot must be considered at this time. Perhaps the potter will be satisfied with the functionally rhythmic finger marks left on the pot from the shaping process. If this texture is not appropriate to the nature or feeling of the pot the marks can be erased or reduced by carefully working over the surface of the spinning pot with the fingertips or a moist elephant ear sponge. Texture can be exaggerated or restricted to parts of the pot by increasing pressure of the fingertips or by scoring with a tool.

The next step is the completion of the rim or lip of the pot. If uneven it is trimmed with the cutting wire. The moist elephant ear sponge is then

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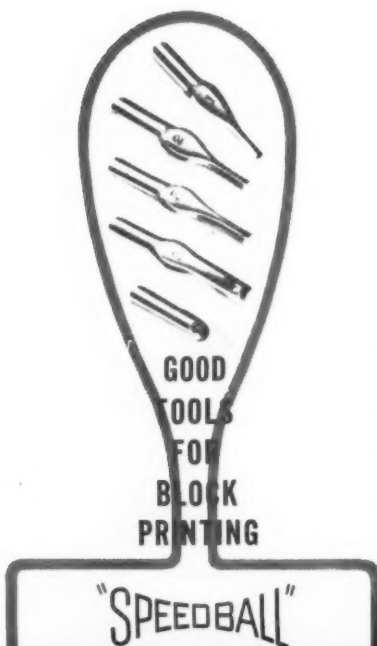
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pressed on the rim as the wheel turns slowly, moistening and shaping it. Finally, by straddling the rim with two fingers of one hand and placing one finger of the other hand on top of the rim, (forming an "A" or "H") the potter helps the lip finish itself as the wheel slowly turns.

Now that the stresses and strains on the pot are over the extra supporting clay that was left on the bottom can be trimmed off with a wire or wood clay tool. By guesswork or experience the potter learns how much to trim away without endangering the pot. Some potters reserve the final trimming until they are cutting the foot, for then the pot is turned over and the bottom is easy to get at.

If a plaster batte was used the pot is easily removed by pulling away the coil of clay holding the batte in place. The pot will dry away from the batte in a matter of hours. If the pot was thrown directly on the wheel head it can be removed by cutting between the wheel and the pot with the cutting wire stretched between two hands and firmly pressed down on the wheel head and pulled under the pot. Water is sloshed on the wheel head and the pot is slid to the edge of the wheel with the cutting wire and onto a waiting batte. The experienced potter makes this look deceptively simple, but the beginner may dent a few pots while learning this technique.

The pot is dried until the thinner top walls are stiff enough to handle and the thicker bottom is still soft enough for carving a foot. The foot conforms the shape of the bottom to the shape of the sides establishing a more uniform thickness for the entire wall. The foot will help the pot sit evenly without rocking or spinning. The experienced potter centers the upside-down pot by placing it as close to the center of the wheel head as possible, turning the wheel on and gently slapping the pot as it turns until it centers itself. The beginner may be satisfied with the less glamorous technique of holding a pencil steady on one side of the upside-down pot and as the wheel turns observing the mark left on the pot. Where the pencil mark disappears the pot is too far from the pencil and where the pencil mark is deeper the pot is too close to the pencil. Adjustments are made until the pencil mark is of even thickness around the pot. The pot is then held steady on the wheel by a clay

coil carefully pressed around the outside lip.

Before cutting the foot there is still time to alter the bottom sides of the pot. The bottom sides of some shapes, difficult to reach in an upright position, can easily be finished in this position. The sides are cut away with the flat side of a triangular clay wire cutting tool and are finished with the wooden side and a sponge.

The foot is formed by pressing the pointed edge of the wire clay tool into

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the bottom of the turning pot, starting
in the center and working out towards
the edge or what will be left as the foot.
The clay is peeled from the bottom in
layers except for the outer edge, ap-
proximately a half-inch, which will be
left exposed as the foot. The potter
exercises his intuition—actually a keen
memory for shape and form—by cut-
ting into the bottom until it conforms
in shape to the now invisible inside bot-
tom of the pot and is generally equal
in thickness to the rest of the walls, re-
ducing the weight of the pot and pre-
venting cracks in drying and firing.
Once shaped the bottom is carefully
smoothed and the signature of the pot-
ter and the date are carefully inscribed.
The work of the wheel has been done.
The pot is elevated on two strips of
wood to encourage uniform drying.
Slip, incised or sgraffito decoration is
applied at this leather-hard stage. When
the pot is bone dry it is slowly fired to
about two-thirds of the glaze fire time
(about 1200 F. for earthenware) re-
sulting in a porous biscuitware which
will facilitate the glazing process.

The possibilities for final decorating or
glazing of the pot are a subject for
further study and experimentation.
However, basic suggestions can be re-
commended for glazing. After the pot
is cooled from the biscuit fire, a thin
solution of glaze (normal solution is
the consistency of thick coffee cream)
is poured into the pot. The pot is gently
rotated until the inside is completely
covered and the glaze is poured back
into its container. Since this process
saturates the thin clay wall, the outside
glazing should be postponed until the
next day. The outside glaze is poured,
brushed or sprayed on. To allow for a
tendency of the glaze to run when melt-
ed, it is well to put less glaze on the
bottom and a thicker layer around the
top. The thickness of the application
depends on the effect desired and on
the composition of the glaze. An aver-
age thickness might be equal to the
thickness of a knife blade and it can be
measured by scraping a small hole with
a pin through the glaze to the biscuit
clay.

The pot is carefully stacked on stilts in
the kiln and slowly fired. After cooling
overnight the pot is removed from the
kiln. While holding the completed
piece in his hand the potter may pon-
der the magic and skill that trans-
formed the shapeless ball of clay into
this aesthetic and functional form.

Perhaps a poem that was inspired by a



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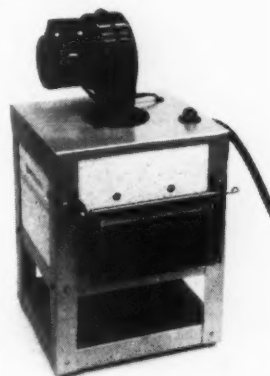
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display of students' pottery will best describe the potter's own deep feeling of wonder and satisfaction. The poem "Finished Masterpiece" is the work of Henry Smith, a student at Pershing High School:

*To the creative hands
that have molded dynamic structures
from the sod of earth
we pay respect.*

*Skilled hands, patient hands,
molding life into a lump of clay,
breathing beauty into a marble stone.
Hands of precision,
rhythmic fingers pulsating
with the rhapsody of the potter's
wheel.*

*Hands carving, fingers molding,
minds creating.
Patience and skill,
a new form is born,
created by the mind of man,
constructed by the creative hand.
From the lump of lifeless clay
a new masterpiece is born.*

Sling

(continued from page 18)

We'd need fat, round balls and little hemispheres (from geography, you know), good solid cubes, triangular wedges, long cylinders and rectangles (from our mathematical learnings!)—at any rate, legs to serve the shape and purpose of the bowl.

We're now in the midst of slinging our second set of bowls, this time with legs, ready to stylize our designs by means of simple stencils put on with bits of sponge dipped in glaze. We'll try sgraffito (scratching with a tool through an underglaze, thus letting the natural color of the clay show through). The legs give the bowls a "new look" and students and teacher a new perspective—an outlook that may result in developing a radically different *third* set of sling bowls. Already one girl with a knack for experimenting has left the imprint of a metal ring inside her bowl, thus creating a flower design for all to behold. Would our next step possibly be imprinted designs?

Regardless of the next step or development, our learnings have been valuable. The evaluation of techniques learned and applied, strengthened by the satisfaction achieved, resulted in a closer relationship between teacher and class. This relationship in itself, as it permeates the entire day, is the most worthwhile outcome of this venture.



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